

REMARKS

Applicants will address each of the Examiner's rejections in the order in which they appear in the Office Action.

Claim Rejections

In the Office Action, the Examiner rejects Claims 36-45 under 35 USC §112, first paragraph, as allegedly containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. This rejection is respectfully traversed.

More specifically, the Examiner states that all the rejected claims recite the step of forming a semiconductor film over the wiring, that "there is not enough support for this feature in the disclosure", and that this is not shown in Figs. 16(B) and 16(C). Applicants disagree.

"Embodiment 15" (see pages 46-48 of the verified translation and pages 45-46 of the substitute specification) and Fig. 32 of the present application show a semiconductor film 1904-1908 over a wiring 1902 (the gate electrode). Hence, this feature is clearly described and shown in the specification and drawings as filed in such a way to enable one skilled in the art to make and/or use the invention. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claim Rejections - 35 USC §103

Claims 26-28 and 30

The Examiner also rejects Claims 26-28 and 30 under 35 USC §103(a) as being unpatentable over Matsuda (US 6,078,071) in view of Oikawa et al. (US 4,619,695). This rejection is also respectfully traversed.

In particular, independent Claim 26 is directed to a method of manufacturing a wiring in a semiconductor device wherein the wiring is formed of a tungsten film and wherein an amount of sodium contained within the (tungsten) wiring is 0.3 ppm or less. The Examiner admits that this feature is not disclosed in Matsuda. The Examiner, however, contends that Oikawa discloses this feature at col. 6, lns. 16-26 and col. 8, lns 6-13 of Oikawa.

Applicants disagree. Col. 6, lns. 16-26 is a part of an example in Oikawa which is directed to a molybdenum target and molybdenum powder. This example, which includes Col. 6 and Table 1, in Oikawa discuss the purity of a molybdenum target and molybdenum powder, not a tungsten film as recited in independent Claim 26. Further, while col. 8 in Oikawa states that “part of the process according to the present invention is applicable to the manufacture of targets for LSI electrodes of high-melting metals other than molybdenum” and mentions tungsten, there is nothing in the reference disclosing or suggesting the amount of sodium in a tungsten film, much less suggesting that the amount of sodium contained within such a tungsten film is 0.3 ppm or less.

Hence, these references fail to disclose or suggest the method of Claims 26-28 and 30, and the claims are patentable thereover. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claims 29-30

The Examiner also rejects Claims 29-30 under 35 USC §103(a) as being unpatentable over Matsuda in view of Oikawa and further in view of Brodsky et al. (US 6,245,668). This rejection is respectfully traversed.

These claims are dependent claims. Therefore, for at least the reasons discussed above for independent Claim 26, these claims are also patentable over the cited references. Accordingly, it is

respectfully requested that this rejection be withdrawn.

Claims 31 and 35

The Examiner also rejects Claims 31 and 35 under 35 USC §103(a) as being unpatentable over Matsuda in view of Ikeda et al. (JP 408153722). This rejection is also respectfully traversed.

While Applicants respectfully traverse this rejection, in order to advance the prosecution of this application, Applicants have amended independent Claim 31 herein. It is respectfully submitted that the cited references do not disclose or suggest the method of independent Claim 31.

Accordingly, it is respectfully requested that this rejection be withdrawn.

Claims 32-35

The Examiner also rejects Claims 32-35 under 35 USC §103(a) as being unpatentable over Matsuda in view of Ikeda and further in view of Brodsky. This rejection is respectfully traversed.

These claims are dependent claims. Therefore, for at least the reasons discussed above for independent Claim 31, these claims are also patentable over the cited references. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claims 36 and 41

The Examiner also rejects Claims 36 and 41 under 35 USC §103(a) as being unpatentable over Matsuda in view of Oikawa or Ikeda and further in view of Kobeda et al. (US 5,208,170). This rejection is also respectfully traversed.

As explained above, the cited references do not disclose or suggest the claimed feature of wherein an amount of sodium contained within the tungsten wiring is 0.3 ppm or less, as recited in

independent Claim 36. Hence, this claim is patentable over the cited references.

In order to advance the prosecution of this application, Applicants have amended independent Claim 41 to recite wherein an amount of sodium contained within the tungsten film gate electrode is 0.3 ppm or less. As this feature is not disclosed or suggested by the cited references, this claim is also patentable.

Therefore, it is respectfully requested that this rejection be withdrawn.

Claims 37-40 and 42-45

The Examiner also rejects Claims 37-40 and 42-45 under 35 USC §103(a) as being unpatentable over Matsuda in view of Oikawa or Ikeda, and Koeda and further in view of Brodsky. This rejection is respectfully traversed.

These claims are dependent claims. Therefore, for at least the reasons discussed above for the independent claims, these claims are also patentable over the cited references. Accordingly, it is respectfully requested that this rejection be withdrawn.

Conclusion

Accordingly, for at least the above-stated reasons, the present application is now in a condition for allowance and should be allowed.

If any fee is due for this amendment, please charge our deposit account 50/1039.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mark J. Murphy', written over a horizontal line.

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